



**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2022-0517; Project Identifier MCAI-2021-00356-R; Amendment 39-22047; AD 2022-10-09]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Helicopters**

**AGENCY: Federal Aviation Administration (FAA), DOT.**

**ACTION: Final rule; request for comments.**

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for Airbus Helicopters Model SA-365C1 and SA-365C2 helicopters. This AD was prompted by a Model EC225 helicopter accident and subsequent investigation that determined that the level of particles in certain main gearboxes (MGB) could lead to a planet gear seizure. This AD requires inspecting the MGB magnetic plugs and oil filter for particles and, depending on the outcome of the inspections, further inspections and replacing certain parts, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For EASA material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. For Airbus Helicopters service information identified in this final rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax 972-641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. Service information that is incorporated by reference is also available in the AD Docket at <https://www.regulations.gov> by searching for and locating Docket FAA-2022-0517.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0517; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Kristin Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email [Kristin.Bradley@faa.gov](mailto:Kristin.Bradley@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Background**

EASA, which is the Technical Agent for the Member States of the European Union, issued EASA AD No 2020-0156, dated July 14, 2020 (EASA AD 2020-0156), to correct an unsafe condition for all serial-numbered Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale) Model SA 365 C1, SA 365 C2, and SA365 C3 helicopters. EASA advised of an investigation that was conducted on the MGB's design following an EC 225 helicopter accident. EASA further advised that investigation results determined that the level of detectability of particles linked to a planet gear spalling needs improvement. EASA stated this condition, if not detected and corrected, could lead to a planet gear seizure possibly resulting in the loss of the MGB and subsequent reduced control of the helicopter.

Accordingly, EASA AD 2020-0156 required inspecting the MGB magnetic plug and MGB oil filter for particles and depending on the results of the inspection, conducting further inspections or removing certain parts from service. EASA AD 2020-0156 also required modification of certain helicopters by replacing certain part-numbered magnetic plugs with other part-numbered magnetic plugs and prohibited the installation of an affected magnetic plug on any helicopter. EASA considered EASA AD 2020-0156 to be an interim action and stated that further AD action may follow.

After EASA issued EASA AD 2020-0156, further investigation results determined the planet gears installed in the epicyclic module of the MGB are subject to higher outer race contact pressures, which may cause spalling and cracking. Accordingly, EASA issued EASA AD No 2021-0016, dated January 13, 2021 (EASA AD 2021-0016), which superseded EASA AD 2020-0156. EASA AD 2021-0016 retains the requirements of EASA AD 2020-0156 and requires replacing the second stage planet gears at reduced intervals. EASA AD 2021-0016 also prohibits the installation of an affected MGB on any helicopter, unless the planetary gears are replaced as required by the EASA AD.

### **Related Service Information Under 1 CFR Part 51**

EASA AD 2021-0016 specifies procedures for inspecting the MGB magnetic plug and oil filter and depending on the results, corrective action. EASA AD 2021-0016 also

specifies procedures for modifying the helicopter by replacing the non-electrical magnetic plug with an improved non-electrical magnetic plug. EASA AD 2021-0016 specifies procedures for replacing all second stage planet gears at specified intervals. EASA AD 2021-0016 also prohibits installing a certain part-numbered magnetic plug on any helicopter and permits the installation of an affected MGB provided that no planet gear installed has exceeded 300 flight hours since new and the planetary gears have been replaced as required following the installation of the MGB.

### **Other Related Service Information**

The FAA reviewed Airbus Helicopters Alert Service Bulletin (ASB) No. SA365-05.33, Revision 1, dated December 15, 2020, which establishes a new maintenance criterion following the detection of particles during the scheduled periodic check of the MGB magnetic plug.

The FAA also reviewed Airbus Helicopters ASB No. SA365-65.53, Revision 0, dated May 28, 2020. This service information specifies procedures for installing modification 0763B19 to improve the performance in collecting metal particles in the new non-electrical magnetic plug.

### **FAA's Determination**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is issuing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other products of the same type designs.

### **Requirements of this AD**

This AD requires accomplishing the actions specified in EASA AD 2021-0016, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD and except as discussed under "Differences Between this AD and the EASA AD."

## **Explanation of Required Compliance Information**

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities to use this process. As a result, EASA AD 2021-0016 will be incorporated by reference in the FAA final rule. This AD would, therefore, require compliance with EASA AD 2021-0016 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in the EASA AD. Service information specified in EASA AD 2021-0016 that is required for compliance with EASA AD 2021-0016 is available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0517.

## **Differences between this AD and the EASA AD**

The EASA AD applies to Airbus Helicopters Model SA 365 C3 helicopters, whereas this AD does not because that model is not FAA type-certificated. The EASA AD requires sending oil samples to Airbus Helicopters, contacting Airbus Helicopters to determine the characterization of certain particles collected or for details on the MGB history, and reporting certain information to Airbus Helicopters, whereas this AD does not. The EASA AD 2021-0016 specifies to contact Airbus Helicopters if further particles are collected during close monitoring, whereas this AD requires, before further flight, accomplishing repair in accordance with a method approved by the Manager, General Aviation & Rotorcraft Section, International Validation Branch, FAA; or EASA; or Airbus Helicopters' EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature. The EASA AD requires inspections after the last flight of each day, whereas this AD requires those inspections prior to the first flight of each day. Where the service information referenced in EASA

AD 2021-0016 specifies that certain requirements can be performed by a mechanical technician or pilot, this AD requires that the visual check of the MGB magnetic plugs be performed by a qualified mechanic.

### **Interim Action**

The FAA considers this AD to be an interim action. If final action is later identified, the FAA might consider further rulemaking then.

### **FAA's Justification and Determination of the Effective Date**

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for "good cause," finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

There are no helicopters with this type certificate on the U.S. Registry. Accordingly, notice and opportunity for prior public comment are unnecessary, pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, for the foregoing reasons, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days.

### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2022-0517; Project Identifier MCAI-2021-00356-R" at the beginning of your comments. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this AD because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any

personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this AD.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Kristin Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email [Kristin.Bradley@faa.gov](mailto:Kristin.Bradley@faa.gov). Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Regulatory Flexibility Act (RFA)**

The requirements of the RFA do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

### **Costs of Compliance**

Currently, there are no affected U.S.-registered helicopters. If an affected helicopter is imported and placed on the U.S. Register in the future and labor costs are estimated at \$85 per work-hour, the FAA provides the following cost estimates to comply with this AD:

Inspecting the magnetic plugs and oil filter for particle deposits will take about 1 work-hour for an estimated cost of \$85 per helicopter per inspection cycle.

Replacing the magnetic plugs will take about 5 hours and parts will cost about \$1,877 for a total cost of \$2,302 per helicopter.

Replacing the planetary gear assembly will take about 48 work-hours and parts will cost about \$58,009 for a total cost of \$62,089 per helicopter.

Replacing an MGB will take about 42 work-hours and parts will cost about \$295,000 (overhauled) for a total cost of \$298,570 per helicopter.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:



## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2022-10-09 Airbus Helicopters:** Amendment 39-22047; Docket No. FAA-2022-0517; Project Identifier MCAI-2021-00356-R.

#### **(a) Effective Date**

This airworthiness directive (AD) becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Airbus Helicopters Model SA-365C1 and SA-365C2 helicopters, certificated in any category,

#### **(d) Subject**

Joint Aircraft Service Component (JASC) Code: 6320, Main Rotor Gearbox.

#### **(e) Unsafe Condition**

This AD was prompted by an accident involving a Model EC225LP helicopter in which the main rotor hub detached from the main gearbox (MGB). The FAA is issuing this AD to detect particles in the MGB and prevent planet gear seizure. The unsafe condition, if not addressed, could result in planet gear seizure resulting in the loss of the MGB and subsequent reduced control of the helicopter.

#### **(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

#### **(g) Requirements**

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0016, dated January 13, 2021 (EASA AD 2021-0016).

#### **(h) Exceptions to EASA AD 2021-0016**

(1) Where EASA AD 2021-0016 refers to its effective date or July 28, 2020 (the effective date of EASA AD 2020-0156, dated July 14, 2020), this AD requires using the effective date of this AD.

(2) Where EASA AD 2021-0016 requires actions during each “after last flight” of the day inspection, this AD requires those actions before the first flight of each day.

(3) Where EASA AD 2021-0016 refers to flight hours, this AD requires using hours time-in-service.

(4) Where the service information referenced in EASA AD 2021-0016 specifies to discard certain parts, this AD requires removing those parts from service.

(5) Where the service information referenced in EASA AD 2021-0016 specifies to return a certain part or send a certain part to an approved workshop, this AD requires removing that part from service.

(6) Where the service information referenced in EASA AD 2021-0016 specifies to use tooling, this AD allows the use of equivalent tooling.

(7) Where the service information referenced in EASA AD 2021-0016 specifies to contact Airbus Helicopters if further particles are collected during close monitoring, this AD requires, before further flight, accomplishing a repair in accordance with a method approved by the Manager, General Aviation & Rotorcraft Section, International Validation Branch, FAA; or EASA; or Airbus Helicopters’ EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(8) Where the service information referenced in EASA AD 2021-0016 specifies that certain requirements can be performed by a mechanical technician or pilot, this AD requires that the visual check of the MGB magnetic plugs be performed by a qualified mechanic.

(9) Where the service information referenced in EASA AD 2021-0016 specifies that if any 16NCD13 or 18NC16 particles are present you are to take a 1-liter sample of oil and send it to the manufacturer, this AD does not require those actions.

(10) Where the service information referenced in EASA AD 2021-0016 specifies to perform a metallurgical analysis and contact the manufacturer, this AD does require determining the characterization of particles collected but does not require contacting the manufacturer to determine the characterization of the particles collected.

(11) Where the service information referenced in EASA AD 2021-0016 specifies to contact Airbus Helicopters for details on the MGB history, this AD does not require this action.

(12) The “Remarks” section of EASA AD 2021-0016 does not apply to this AD.

**(i) Special Flight Permit**

Special flight permits, as described in 14 CFR 21.197 and 21.199, are not allowed.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(k) Related Information**

For more information about this AD, contact Kristin Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email Kristin.Bradley@faa.gov. For service information identified in this AD that is not incorporated by reference, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>.

## **(I) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0016, dated January 13, 2021.

(ii) [Reserved]

(3) For EASA AD EASA AD 2021-0016, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0517.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 6, 2022.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2022-11553 Filed: 5/31/2022 8:45 am; Publication Date: 6/1/2022]